YE SPANISH TILE.

Merchant & Co., Incorporated.
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8th Edition.

Classics
AT
7205
M536
1895

# MERCHANT'S

Metal

## "Spanish" Tiles...

AND

## "Gothic" Shingles

MANUFACTURED OF

Copper
Galvanized Steel
Terne Plates
Zinc

MERCHANT & CO., INCORPORATED

SOLE MANUFACTURERS

Philadelphia
Chicago

New York
Brooklyn

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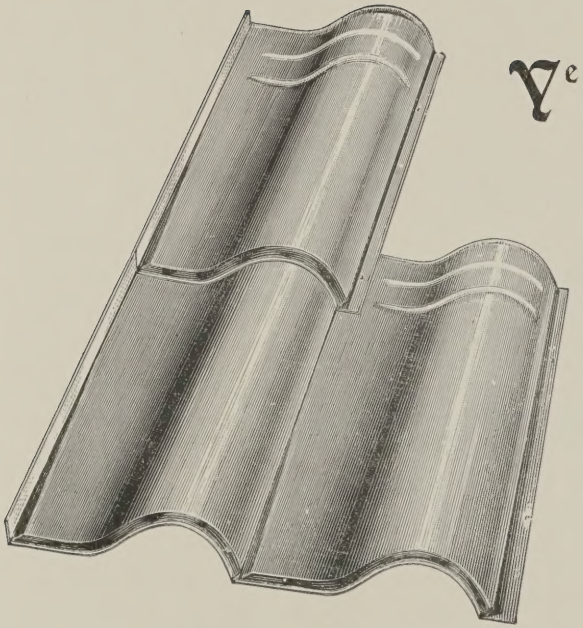
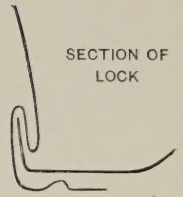


Patented December 6, 1892.
General view of Interlocking "Spanish" Tile

# Ye Spanish Tile...




HAVING in mind the ornamental as well as the useful in the best of Roofing Materials, we are offering improvements that will be of benefit to all who may be interested in the subject.

Terra Cotta Tiles have been used and known for ages, and made in many shapes, undoubtedly the most artistic being that which is known as the "Spanish."

Terra Cotta Tiles have, however, many and serious disadvantages. They are very heavy and their great weight makes it necessary to proportionately strengthen the entire roof substructure; it is well-known that they are easily broken, become detached, and the cemented joints, yielding to the influence of the weather, crack and open, making channels through which a storm easily works its way.

| | 14X20 | 10X14 | 7X10 | |
|---|---|---|---|---|
| Price per Sq. | $7.50 | $8.50 | $10.50 | I C Tin. |
| " " | 9.00 | 10.75 | 13.00 | Galvd. Steel. |

# Our "Spanish" Tile is made of Sheet Metal

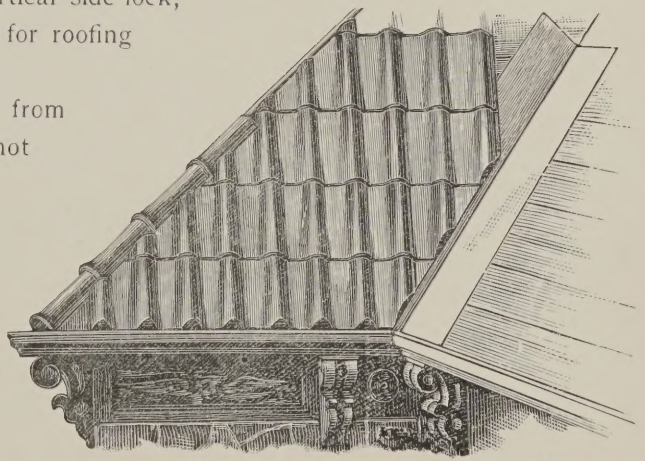
## and is Superior to the Terra Cotta Tile.

Possessing its characteristic form and artistic beauty, but having none of its disadvantages.

**Our Metallic Tile** Is light, durable, absolutely storm-proof, and easily adjusted. They are manufactured by us (under Patent), of either Copper, Steel (galvanized), Terne Plates or other metals, with a vertical side lock, which gives them the valuable properties they possess for roofing purposes.

It is safe to say that our Metallic Tile made from our fine grade of Cold Rolled Sheet Copper, will not only make the *handsomest* and most artistic of roofs, but absolutely the *best* roof known.

OVER ONE MILLION SQUARE FEET NOW IN USE.



Section showing application of Valley Tiles. (See page 7 for instructions.)

UNION STATION, H. & T. CENTRAL RY. AND TEXAS & PACIFIC RY., AT DALLAS, TEXAS, ROOFED WITH MERCHANT'S METAL "SPANISH" TILES.

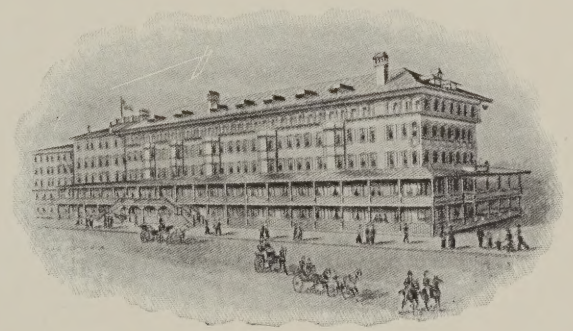
# Copper "Spanish" Tiles . . .

WE MANUFACTURE "Spanish" Tiles of either 12 oz., 14 oz., 16 oz., or any other thickness of copper. For ordinary buildings we recommend 12 oz., but for extra large buildings 14 oz. or 16 oz. copper is preferable. We guarantee the Copper to be uniform in quality and weight, and to be strictly in accordance with the specification. The copper tiles are practically indestructible, becoming handsomer with age. They have also a considerable value if removed from the roof, which cannot be said of any other material. The construction of this tile is such that ample provision is made for the contraction and expansion of the copper.

There are three sizes of tile which are adapted for *straight surfaces*, viz.: 7 x 10″, 10 x 14″, and 14 x 20″. The latter is adapted for large roofs only. For ordinary buildings we recommend the 10 x 14″ size.

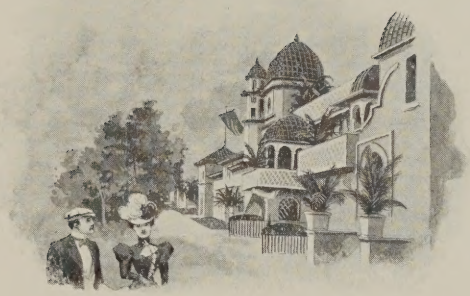
| | | | TIN. | GALVD. |
|---|---|---|---|---|
| 7 x 10″ | size contains 400 Tiles | per square. | Wt., 130 lb. | 140 lb. |
| 10 x 14″ | " " 174 " | " " | " 115 " | 125 " |
| 14 x 20″ | " " 72 " | " " | " 105 " | 125 " |
| "Ten in one," 15½ sheets | | per square. | Wt., 125 lb. | 135 lb. |

(See page 9.)



HADDON HALL, ATLANTIC CITY, N. J., COVERED WITH MERCHANT'S "SPANISH" TILES.

"Los Banos" (Baths) at San Diego, Cal., Roofed with Merchant's Metal "Spanish" Tiles.



## Formula for Laying

# Metal "Spanish" Tiles

7 x 10″
10 x 14″ **Sizes**
14 x 20″

**Adapted for Straight Surfaces only.**

COMMENCING the first course by laying tiles with closed ends (or Starters), true to a line along the eave of the building, giving them projection as desired, beginning at the left-hand side—as you stand facing the building. Use nails for each tile, which are to be driven at intervals to suit circumstances through the nailing flange at the right of the tile (be careful not to drive nails into the gutter under the side lock), using No. 12x1″ Barbed Wire Nails, or 1″ Copper Nails. (The boxes containing "**Starters**" are marked so on the outside.)

Care must be taken to have the side locks properly joined together; the tiles laid and nailed true and straight, which will insure perfect and rapid work. The surest way is to line the roof, using the lock as a guide.

Begin the next course at the left, as before, and be sure to give the necessary over-lap, so that the tiles will fit closely together, and make a positive joint. By exercising care in starting and properly over-lapping the tiles, the workmen can keep each succeeding course true and straight.

Hip Tiles are furnished when wanted, which can be made to fit any angle or pitch with little trimming.

**Valleys:**—There is no special valley to be used with our "Spanish" Tile, but would recommend using a sheet of copper (14 or 16 oz.) or tin as desired, say 20 inches wide, and have the tiles well trimmed and laid over the valley, and securely nailed. We do not supply Valley Tiles, as the different pitches would necessitate a special die in each case, and the roofer would experience more difficulty in fitting specially made Valley Tiles than to make them on the roof, to suit circumstances, by cutting the regular tiles. Sections cut off in valley can be used at the hips, avoiding unnecessary waste of material. Close all ends of Valley Tiles with metal similar to the tiles. These end pieces to be soldered. No solder is used except in the valleys.

# We Also Offer . . .

The **"Spanish" Pattern Tiles** made from our **High-Grade Roofing Plates** painted in imitation of red clay tiles.

THE BRANDS ARE:

"ALASKA" (or) "CAMARET" (Heavily Coated)

"MERCHANT'S ROOFING" (Very Heavily Coated)

"MERCHANT'S OLD METHOD"
(The Heaviest Coated Plate Made)

**All Coated by the Pure Palm Oil Process.**

**Prices Named on Application.**

The above brands of Roofing Plates are made in Philadelphia, under our personal supervison, thereby giving a greater protection in the assortment of the sheets, and while we are in a position to furnish tile in all grades of tin, we recommend the above as being the best.

## "Ten in One."

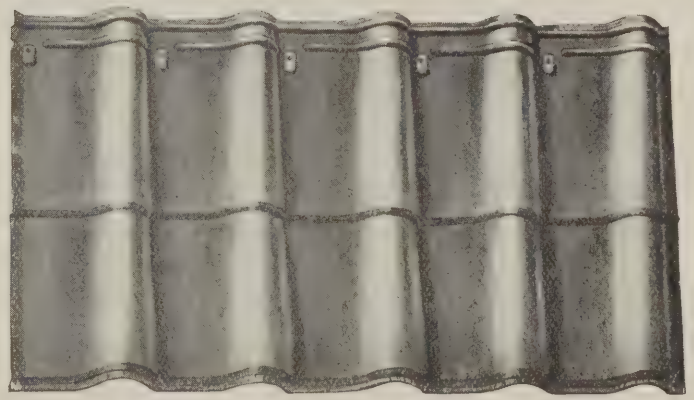
# Merchant's Metal "Spanish" Tiles

... One Sheet Stamped into Ten Tiles ...

**Copper  Terne Plates  Galvanized Steel  Zinc**

IT is a well-known fact that we were the originators of Metal "Spanish" Tiles with *storm-proof lock*, the excellence of which is proven by the large quantities supplied during the past years.

We hold letters patent on the *only storm proof lock* which has been found effective, formed in the curve part of the tile, which turns the water from the lock. This limits *imitators* to a lock in the *flat portion of the tile*, where it would naturally be *flooded* in every rainstorm and leakage is inevitable. The system of treatment as in corrugated iron with side over-lap, such as our "*Ten in One*," is superior to a flat lock. While we do not consider the light sheets will make as tight a roof as *Our Interlocking Tiles*, at the same time we manufacture them for those who prefer this pattern, which shows ten figures in each sheet. The upper end of the underlying Tile has securely riveted thereto heavy cleats, which secures the lower edge of the Tile above, which being independent of nails, makes a most valuable feature in this class of Tile.



PRICES PER SQUARE OF 100 SQ. FEET.

I X Terne Plates @ $8.50
Weight, 110 lb.

Galvanized Steel, $10.00
Weight, 125 lb.

Zinc, $12.50
Weight, 110 lb.

Discount, per square.

BOYS' CLUB, FALL RIVER, MASS., ROOFED WITH MERCHANT'S (14 OZ. COPPER) "SPANISH" TILES.

# Important Information

. . . Copy of a letter sent us by a firm of prominent Architects

## Regarding the

## Saving in Cost of Construction of a Roof by using Metal "Spanish" Tiles.

"MESSRS. MERCHANT & CO.,

"*Gentlemen* :—In accordance with your instructions of January 25th, 1892, we have gone into the subject of relative strengths of roof framing required to support a covering of 'Spanish Tiles' of terra cotta, and one of sheet copper tiles.

"We find that the weight of 'Spanish Clay Tiles,' sheathing, etc., including the weight of snow, etc., is 26½ pounds per square foot, and that the weight of sheet copper tiles, sheathing, and possible load of snow and ice, is 19 pounds.

"Assume a rafter span of 14 feet, which perhaps corresponds to that most commonly found in practice, and the rafters 2 feet centres, then we have a rafter load (in the case of Spanish Clay Tiles) of 14 feet by 2 feet equaling 28 square feet by 26½ pounds, equaling 742 pounds. In the case of sheet copper tiles, we have 14 feet by 2 feet equaling 28 square feet by 19 pounds, equaling 532 pounds. To safely support the 'Spanish Clay Tiles' will require a hemlock rafter of 3 by 7 sectional area ; to safely support the copper tiles will require a hemlock rafter of 2 by 7 sectional area.

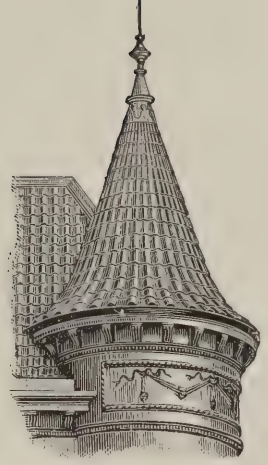
"The before-mentioned sizes of rafters represent very fairly the relative strengths of roof framings required for the two coverings. We can sum up as follows : that the 'Clay Tiles' require *one-half* more roof timber for their support than the copper tiles."

THE WACO, TEXAS, NATATORIUM, ROOFED WITH MERCHANT'S METAL "SPANISH" TILES.

# Merchant's Graduated Tiles

(Spanish Pattern)

Saves 50 per cent. in material, and more in labor of laying. Does not involve waste by trimming in putting on.



PATENTED JAN. 3, 1894.

for

Circular Roofs,
Domes
and
Bell-Shaped Towers,
Turrets
and all
Conical Surfaces.

**The Only Metal Tile made for this class of work.**

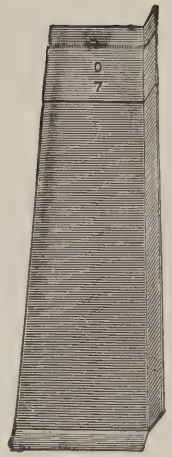
THERE are few buildings being erected that do not have one or more towers upon them and no feature of the *modern* building adds more to its architectural beauty than a graceful and well-proportioned tower. Yet in their construction a difficult problem has invariably arisen as to a suitable covering—especially for *conical towers,* for which there has been nothing in the market adaptable, the only available covering being wood shingles, which split when drawn to the convex form of a tower. Slate from the same cause will break, and metal shingles of form designed for straight

roofing involve a waste of just fifty per cent. of materials in fitting to cones, and a greater waste of time in putting on, as after the first course each succeeding one has to be reduced in size, and practically made over by the roofer.

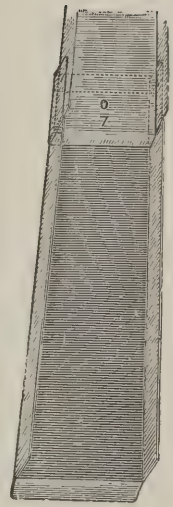
: : : : : :

**The manufacturing is now done at the factory, and not by the roofer on the roof.**

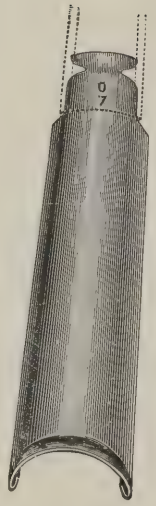
: : : : : :



No. 2.
Graduated Flat Tile, with but one edge turned.



No. 3.
Graduated Flat Tile, with both edges turned ready for nailing between wood strips; also section of adjoining course.



No. 4.
Graduated Round Tile, for covering wood strips, dotted line indicating next tile above.

## Locks

It will be noticed that in both our Graduated and Regular "Spanish" Tile, the locks are so constructed that the water cannot enter them, but is carried *from* instead of *to* the lock. In this feature they differ, and are superior to all others.

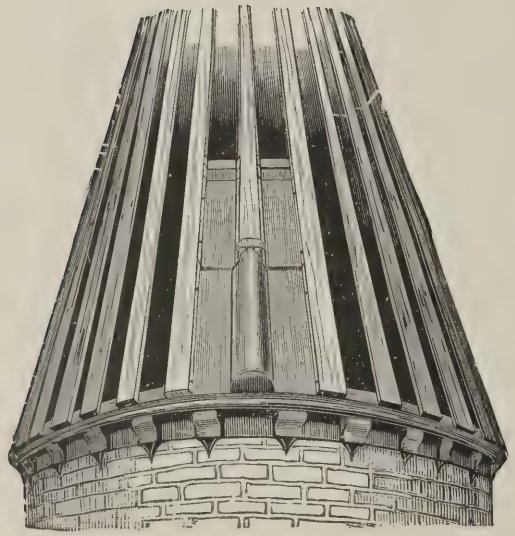
Prices named on application. We figure a net price for a given surface of roofing.

BOAT HOUSE FOR C. G. EMERY, ESQ., CALUMET ISLAND, ST. LAWRENCE RIVER, ROOFED WITH MERCHANT'S METAL "SPANISH" TILES.

# General Instructions

## for Laying Merchant's Graduated Tiles

## On Conical Towers, Domes, Etc.



Showing Tower already sheathed with Wood Strips, and indicating the necessity of having two courses of flats in order to allow the Round Tile to be put in position.

PREPARE the roof by securely nailing to the sheathing from eave to cone, strips of lumber ⅞″ thick and of such width as we will instruct on receipt of plans. Spaces between strips must be uniform, but varied according to size of tower.

Lay *two* courses of the flat portion of the tile, beginning at the eave, using the largest size, or lowest number (the graduated tiles being numbered in rotation), with the upturned edges fitting nicely between the wood strips, through which they are nailed. Overlap to the recess formed in top end of tile below. In putting on the curved parts, use for each course the number corresponding with plain portion, and nail into the wood strips through cleats at upper end, then fasten lower end of first course by nailing upwardly into the end of the strip; all tile above will be secured by telescoping over the tile below. Each tile has its number stamped on it—No. 1 being the largest (flat and round tiles corresponding). Full numbers do not taper to next size smaller, but O's do. Should it be required to make full taper from ordinary numbers, cut a strip from each side of the curved parts 5-16 inches wide at top and running out 1½ inches above the lower end. This leaves the lock perfect.

SANTA BARBARA, CAL., COTTAGE.
THIS ILLUSTRATES ONE OF MANY COTTAGES COVERED WITH MERCHANT'S METAL "SPANISH" TILES.

# Merchant's "Gothic" Shingle

## ...An Important Feature

In our new **"Gothic" Shingle**, aside from the storm-proof lock, is that the sheets are first *crimped*, giving the Shingles strength and rigidity, as well as the ornamentation possessed by no other shingle on the market.

These shingles are manufactured of Copper or Terne Plate (of various grades), also of Galvanized Steel.

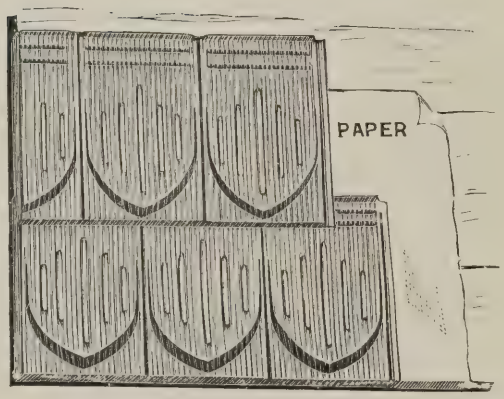
Whenever desired we will furnish the above made of our High-Grade Roofing Plates—at special prices.

### Prices per Square (Painted on both sides).

| | Galvanized Steel. | | I C Terne Plate. | |
|---|---|---|---|---|
| 14 x 20 in. size, | $8.00 per sq. | Wt., 95 lb. | $5.75 per sq. | Wt., 80 lb. |
| 10 x 14 in. size, | 8.75 " | " 105 " | 6.25 " | " 85 " |
| 7 x 10 in. size, | 10.00 " | " 115 " | 7.25 " | " 100 " |

We have Three Sizes, viz:

7 x 10 in.
10 x 14 in.
14 x 20 in.

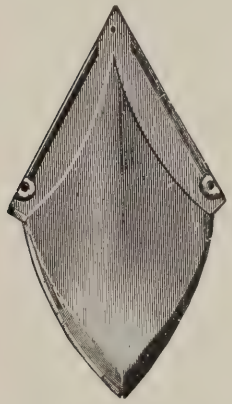



*Discount,* .....

# "Gothic" and "Diamond" Tiles

Tin, Copper or . . . . . Galvanized Steel

(GOTHIC PATTERN.)



## for Siding or Roofing.

Each Tile covers 6 by 6 in. 400 cover a Square of 100 square feet.

Gross weight, 85 lbs. per square.

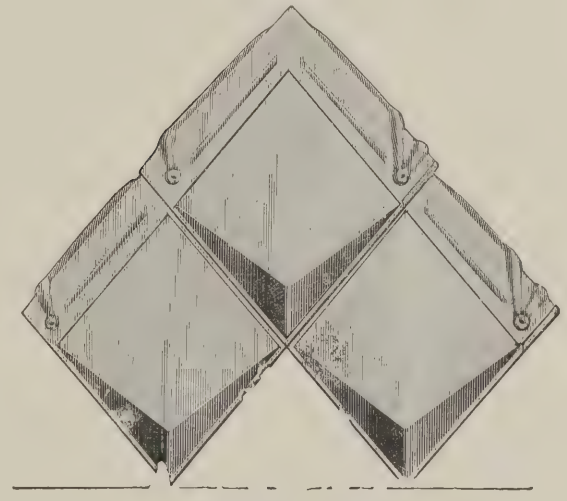
PRICE LIST (Painted).

"Diamond," made of I C Charcoal Tin, at $8.75 per square. Wt., 90 lb.

"Gothic," made of I C Charcoal Tin, at $8.75 per square. Wt., 90 lb.

Discount, per square.

(DIAMOND PATTERN.)



Patented April 12, 1892.

## for Small Roofs, Mansards, Bulkheads, Gables, Etc.

In ordering, if you will give us the length of eave or base course we will cut the right amount for first course. The points cut off will work along the top. No extra charge.

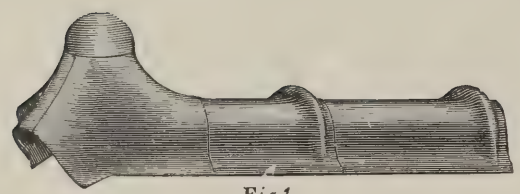


*Fig 1*

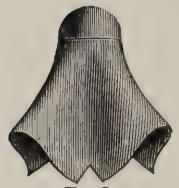


*Fig 2*

# Ridge

. . . and . . .

# Hip Tiles

## Also Terminals.

### for Hips, Gables and Dormers.

FIG. 1.—Ridge (or Hip) Tile and Terminal.

FIG. 2—Hip Terminal made suitable for 10 x 14 or 14 x 20 size "Spanish" Tile.

FIG. 3—Special Valley for "Gothic" pattern or other shingles.

PRICES:

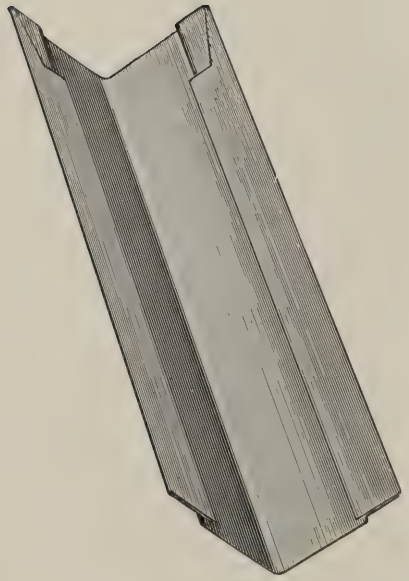


*Fig. 3*

N. Y. Central R. R Station, Amsterdam, N. Y., Roofed with Merchant's 14 Oz. Copper "Spanish" Tiles.

SPOONER LIBRARY, UNIVERSITY OF KANSAS, LAWRENCE, KAN., ROOFED WITH MERCHANT'S METALLIC "SPANISH" TILES.

# On each Sheet of Merchant's High-Grade Roofing Plates

There are letters and figures stamped similar to those in the above picture. You can plainly read the name and thickness of each sheet.

That much you can see, but what you can't see is most important of all. It is the fact that Merchant's best plates are coated by the Palm Oil Process, which is the only way to make good Roofing Tin. The duty of a roof is to keep out the rain. It will perform this duty if you use Merchant's Palm Oil High-Grade Roofing Plates, and take care of them. Just how long a roof made of acid plates will last no man can say.

Sometimes it will keep out the wet three or four years, and sometimes it will leak inside of twelve months. It's guesswork, more or less. Guesswork doesn't pay in putting on a roof.

The Brands are

"Merchant's Old Method"
"Merchant's Roofing"
"Alaska" and "Camaret"

Resquared.
Each Sheet Stamped.
No Wasters.
Superior to any of their Class Manufactured.
Coated by the Palm Oil Process.

MERCHANT & CO.
INCORPORATED.

PHILADELPHIA, 517 Arch Street.
NEW YORK, 245-247 Water Street.
BROOKLYN, 584 Flushing Avenue.
CHICAGO, 36 La Salle Street.

# The "Star" Ventilator

**Has a Larger Capacity (for a given size) than any other Ventilator.**

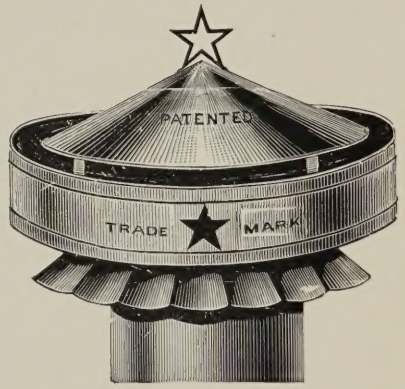
## Ornamental  Durable  Storm-Proof  Largest Area

Skylight "Star" Ventilator

PATENT APPLIED FOR.

It is adapted for Ventilating Churches, School Houses, Hospitals, Theatres, Public Halls, also for Factories, Foundries, Power Houses, Cotton, Woolen and Paper Mills, etc.

OUR COMBINATION SKY-LIGHT "STAR" VENTILATOR is designed to give both light and ventilation, and the storm-proof feature is perfect.



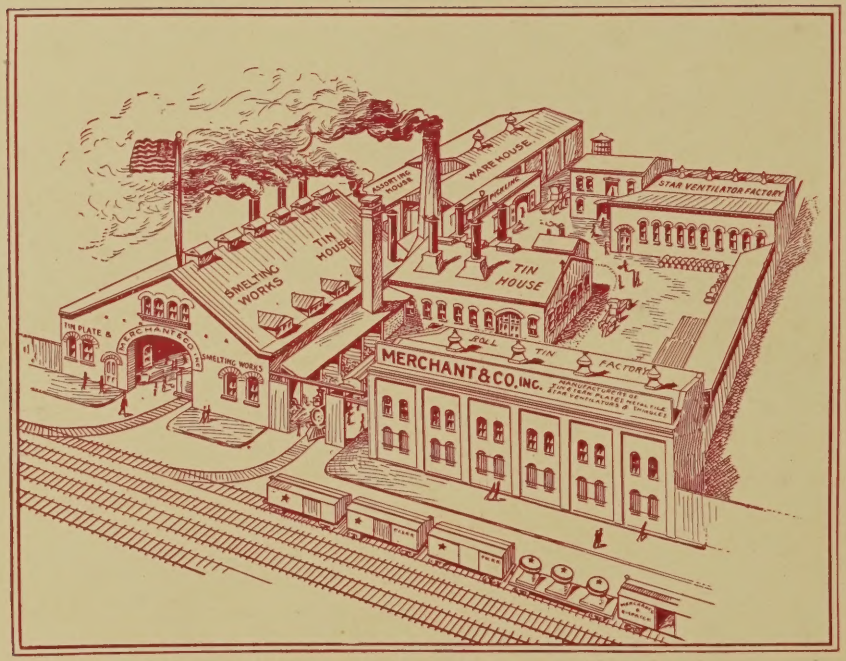

DOWN DRAUGHTS PREVENTED.

**Our Illustrated Catalogue will be Mailed free, to any Address. Prices upon Application.**

**Merchant & Co., Incorporated,**
**Sole Manufacturers.**



AVERY LIBRARY




TINPLATE, SMELTING AND REFINING WORKS OF
MERCHANT & CO., INC., PHILADELPHIA.